

REMARKS

Reconsideration of the application, as amended, is respectfully requested.

I. STATUS OF CLAIMS

Claims 1-37 are pending. Claims 19-37 have been withdrawn due to a Restriction Requirement. In addition, claim 1 has been amended to more particularly point out and distinctly claim that which Applicants regard as their invention. Moreover, claim 8 has been cancelled herewith without prejudice.

Support for the above amendments may be found throughout the specification as originally filed. No new matter has been added by virtue of this amendment.

II. OBJECTION TO THE CLAIMS

Claim 1 has been objected to because claim 1 contains the sentence, “The semiconductor device of claim 1, wherein the first active region is formed in a line-and space pattern” which according to the Examiner appears to be a duplication of dependent claim 2 and thus was not intended to be part of this claim.

In response, claim 1 has been amended herewith such that the sentence “The semiconductor device of claim 1, wherein the first active region is formed in a line-and space pattern” has been deleted from this claim.

In view of the above actions taken, it is believed that the above objection to claim 1 has been overcome. Thus, withdrawal of the above objection to claim 1 is requested.

III. 35 U.S.C. 102(e) and 35 U.S.C. 103(a) Rejections

(i) Claims 1, 2, 4, 6-8 and 10-18 have been rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. US20040036126A1 to Chau et al. (“the Chau publication”).

(ii) Claims 3, 5, and 9 have been rejected under 35 U.S.C. 103(a) has been rejected under 35 U.S.C. 103(a) as being unpatentable over Chau above, and further in view of U.S. Patent No. 6,716,686 to Buynoski et al. (“the Buynoski patent”).

In response, it is submitted that the Chau and Buynoski references alone or in combination with each other fail to teach or suggest all of the features recited in amended claim 1 for at least the reasons set forth below.

For example, according to the present invention, the second active region 140a contacts both of the ends 128 of each of the slabs 120 and extends in a direction orthogonal to a direction in which the slabs 120 extend. In addition, **the second active region 140a has an overlap portion 142 that contacts a portion of the first surface 122, the second surface 124, and the top surface 126 of each of the slabs 120 (please refer to, e.g., Figures 9, 17, and 19, and paragraph [46] in the Detailed Description of the present application).**

The Chau reference (US 2004/0036126) discloses “each source regions330 and drain regions332 of the semiconductor bodies 308 are electrically coupled together by the semiconductor material used to form semiconductor body 308 to form a source landing pad 460 and a drain landing pad 480 as shown in FIG. 4B” (see paragraph [0031] of the Chau reference).

In the Office Action, the examiner alleges that the Chau reference shows a semiconductor device comprising a first active region comprising **a plurality of slabs (330) ... (omitted) ... a second active region (480) ... (omitted) (please refer to page 3 of the Office Action).**

According to Figures 5A-5J of the Chau reference, the semiconductor film 508 is etched in alignment with the photoresist mask 510 to form fins 520 and source/drain landing pads 522 and 524 (see **Figures 5C-5D and paragraphs [0039]-[0040] of the Chau reference**). That is, the fins 520 and the source/drain landing pads 522 and 524 are simultaneously formed from the semiconductor film 508. Since, the fins 520 and the source/drain landing pads 522 and 524 are simultaneously formed from the semiconductor film 508, the Chau reference clearly fails to teach or suggest a semiconductor device, wherein the second active region has an overlap

portion that contacts the first surface, the second surface, and the top surface of each of the slabs, in combination with all of the other features of the amended claim 1 of the present application.

Therefore, for at least the reasons set forth above, the Chau reference fails to teach or suggest all of the features recited in amended claim 1 of the present application.

Next, the Buynoski reference (US 6,716,686) discloses source and drain (S/D) regions 230 and channels 420 in Figures 4 and 5.

In the Office Action, the examiner alleges as follows.

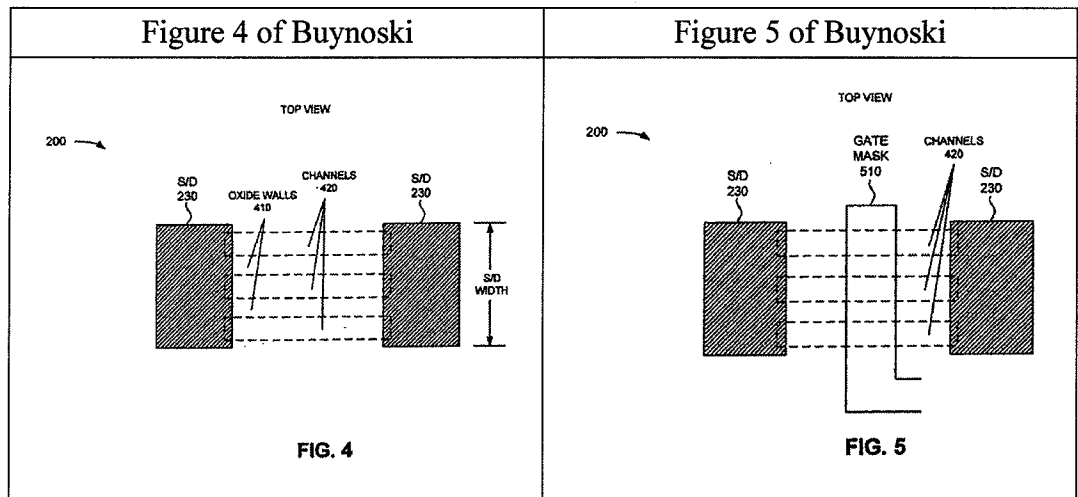
“Buynoski et al. shows (figs. 4 and 5) a Finfet device having a first active region (channels 420) and a second active region (S/D regions 230) in which the materials are formed separately and of different materials (col. 3, lines 33-41 and col. 4, lines 34-35).” **(Please refer to page 5 of the Office Action.)**

However, the channels 420 are formed after the formation of the S/D regions 230 according to the Buynoski reference **(see col. 3, lines 42-53 of Buynoski reference)**.

Col. 3, lines 42-53 of Buynoski reference:

Next, the portion of oxide layer 220 between S/D regions 230 may be masked and etched to create thin walls of oxide 410 for the first device, as illustrated in FIG. 4 (act 115). **The etched portion of oxide layer 220 is shown in FIG. 4** with dotted lines, leaving oxide walls 410. The dotted portions represent areas where the channels will subsequently be formed. Oxide walls 410 serve as the support for channel 420 materials, as will be described in detail below. In one implementation, **channels 420 may be etched to the depth of S/D regions 230**. However, in an exemplary implementation, **channels regions 420 may not be etched down to substrate 210**.

Please note that the channels 420 shown by dotted lines in Figures 4 and 5 of the Buynoski reference are portions to be etched after the formation of the S/D regions 230.



Thus, the Buynoski reference fails to teach or suggest a semiconductor device, wherein the second active region has an overlap portion that contacts the first surface, the second surface, and the top surface of each of the slabs, in combination with all of the other features of the amended claim 1 of the present application. Consequently, the Buynoski reference fails to teach or suggest all of the features recited in amended claim 1 of the present application.

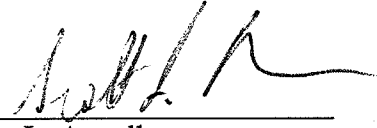
Therefore, for at least the reasons set forth above, the cited references of Chau and Buynoski alone or in combination with each other fail to teach or suggest all of the features of the amended claim 1 of the present application.

IV. CONCLUSION:

In summary, applicants respectfully submit that the instant application is in condition for allowance. Early notice to that end is earnestly solicited.

If a telephone conference would be of assistance in furthering prosecution of the subject application, applicant requests that the undersigned be contacted at the number below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Scott L. Appelbaum', written over a horizontal line.

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